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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/080,992

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Sung-Ho Choi

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7590

07/29/2004

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EXAMINER

NGUYEN, JOSEPH D

ART UNIT

PAPER NUMBER

2683

7

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/080,992

Applicant(s)

CHOI ET AL.

Examiner

Joseph D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toskala et al. (6,456,826) in view of Keranen et al. (6,681,099).

Regarding claim 1, Toskala et al. Discloses a method for switching an operation mode from a non-USTS (Uplink Synchronous Transmission Scheme) to a USTS mode in a Node B capable of communicating with a UE (User Equipment) in both the non-USTS mode and the USTS mode (abstract, fig. 1-4), comprising the steps of:

a) calculating a difference value between a start point of a downlink dedicated channel frame in a downlink dedicated channel transmitted to the UE in the non-USTS mode and a start point of an uplink dedicated channel frame in an uplink dedicated channel received from the UE (fig. 2-4, col. 4 line 55 thru col. 30);

b) determining a first control value for controlling the start point of the uplink dedicated channel frame in the uplink dedicated channel from the UE by comparing the difference value with a given reference value (#30 fig. 4, col. 5 lines 55-67);

c) determining a second control value such that the second control value for the start point of the downlink dedicated channel frame in the downlink dedicated channel of the Node B becomes a multiple of a given number of chips (col. 5 lines 2-30);

d) informing (sending) the UE of the determined first and second control values (col. 5 lines 45-51); and

e) transmitting (sending) a downlink dedicated channel signal such that the start point of the downlink dedicated channel frame becomes a start point determined based on the second control value (col. 6 lines 32-55).

However, Toskala et al. does not specifically disclose calculating a difference value and starting point between downlink an uplink in dedicated channel frame.

Keranen et al. teaches calculating (measuring) a difference value between downlink an uplink in dedicated channel frame (fig. 2, and fig. 4, col. 3 line 55 thru col. 4 line 14). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Toskala et al. system with the teaching of Keranen et al. of calculating a difference value between downlink an uplink in dedicated channel frame in order to determine delay time of downlink and uplink.

Regarding claim 2, Toskala et al. further discloses the method as claimed in claim 1, wherein the reference value is a common delay time for uplink dedicated physical channels from UEs belonging to the Node B (col. 1 line 65 thru col. 2 line 4).

Regarding claim 3, Toskala et al. further discloses the method as claimed in claim 2, wherein the common delay time is a value shared by all of the UEs using a same cell or a same USTS scrambling code, and is set such that uplink dedicated

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physical channel signals received at the Node B from the UEs have a specific delay (col. 2 lines 5-17).

Regarding claim 4, Toskala et al. further discloses the method as claimed in claim 1, wherein the given number of chips is 256 (fig. 1, col. 1 line 65 thru col. 2 line1).

Regarding claim 5, Toskala et al. further discloses the method as claimed in claim 1, wherein the dedicated channel is a dedicated physical channel (DPCCH) (fig. 1).

Regarding claim 6, Toskala et al. discloses a method for connecting with a Node B in a USTS mode by a UE operating in a non-USTS mode in a cell region of the Node B (abstract, fig. 1-4), comprising the steps of:

a) receiving from the Node B a first control value for controlling a frame start point for an uplink dedicated channel signal and a second control value for controlling a frame start point for a downlink dedicated channel signal (fig. 2-4, col. 5 line 31 thru col. 6 line 13);

b) receiving a frame for the downlink dedicated channel signal from the Node B based on the second control value (abstract, col. 5 lines 55-67); and

c) transmitting the uplink dedicated channel signal frame to the Node B based on the first control value, after receiving the downlink dedicated channel signal frame (col. 5 line 55 thru col. 6 line 13).

However, Toskala et al. does not specifically disclose the value for controlling a frame starting point for uplink and downlink.

Keranen et al. teaches the value for controlling a frame starting point for uplink and downlink (fig. 2, and fig. 4, col. 3 line 55 thru col. 4 line 14). Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the Toskala et al. system with the teaching of Keranen et al. of controlling a frame starting point for uplink and downlink in order to determine the starting point for uplink and downlink to calculate the delay time.

Regarding claim 7, Toskala et al. further discloses the method as claimed in claim 6, wherein the first control value is used for controlling a start point of the uplink dedicated channel frame of the UE by comparing (# 30 fig. 4, and fig. 3a-3b):

(a) a difference value between a start point of an uplink dedicated channel frame transmitted to the Node B in the non-USTS mode and a start point of a downlink dedicated channel frame transmitted from the Node B, with (b) a reference value previously given to the Node B (abstract, # 30 fig. 4, and fig. 3a-3b, col. 5 lines 2-30).

Regarding claim 8, Toskala et al. further discloses the method as claimed in claim 6, wherein the second control value is used for controlling a start point of the downlink dedicated channel frame from the Node B to become a multiple of a given number of chips (fig. 1-2, col. 1 lines 49-64).

Regarding claim 9, Toskala et al. further discloses the method as claimed in claim 6, wherein the dedicated channel is a dedicated physical channel (fig. 1, col. 3 lines 1-25).

Regarding claim 10, Toskala et al. further discloses the method as claimed in claim 8, wherein the given number of chips is 256 (fig. 1, col. 1 lines 65 thru col. 2 line 4).

3. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Or faxed to:

703 308-9051, (for formal communication intended for entry)

Or:

(703) 305-9509 (for informal or draft communications, please label  
"PROPOSED" OR "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121  
Crystal Drive, Arlington. VA. Sixth floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D Nguyen whose telephone number is (703) 605-1301. The examiner can normally be reached on 7:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (703) 308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Joseph Nguyen



Jul. 25, 2004



WILLIAM TROST  
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